REMARKS

Claims 1-5, 7-14 and 16-22 are currently pending in the subject application and are presently under consideration.

Favorable reconsideration of the subject patent application is respectfully requested in view of the comments and amendments herein.

I. Rejection of Claims 1-5, 8, 10-14, 16-18 and 20-22 Under 35 U.S.C. §103(a)

Claims 1-5, 8, 10-14, 16-18 and 20-22 stand rejected under 35 U.S.C. §103(a) as being unpatentable over US Patent No. 6,950,680 Kela *et al.* (Kela) and further in view of US Patent No. 6,115,616 Halperin *et al.* (Halperin) and US Patent No. 5,537,673 Nagashima *et al.* (Nagashima). Withdrawal of this rejection is requested for at least the following reasons. None of Kela, Halperin and Nagashima individually or in combination, teaches or suggests all the claim limitations of the subject invention.

> A factfinder should be aware, of course, of the distortion caused by hindsight bias and must be cautious of arguments reliant upon *ex post* reasoning. See *KSR v. Teleflex*, 550 U.S. ___, 127 S. Ct. 1727 (2007) citing Graham v. John Deere Co. of Kansas City, 383 U. S. 1, 36 (warning against a "temptation to read into the prior art the teachings of the invention in issue" and instructing courts to "'guard against slipping into the use of hindsight'" (*quoting Monroe Auto Equipment Co. v. Heckethorn Mfg. & Supply Co.*, 332 F. 2d 406, 412 (CA6 1964))).

Applicants' claimed innovation relates generally to key pad assemblies, and more particularly to systems and methods that provide for *a top cover and bottom cover being over molded around an entire common boundary there* between, to encapsulate various key pad components. To this end, independent claim 1 recites *a key pad assembly comprising: a top cover placed over a stack of keypad components; a bottom cover placed under the stack;* ***the top cover and the bottom cover over molded around the stack*** *to form a self contained key pad unit* and independent claim 11 recites ***automatically identifying the self contained key pad to a host unit upon mounting thereon by an identification tag***. While the examiner stated that the aforementioned

limitation was anticipated by the cited references (Kela, Halperin and Nagashima), applicant's representative would like to respectfully explain in further detail the distinction between the cited reference and the subject claim including previously presented as well as new distinction. None of Kela, Halperin and Nagashima discloses at least this novel feature, with respect to *the top cover and the bottom cover of a key pad assembly being over molded around the stack to form a key pad unit* and *automatically identifying the self contained key pad to a host unit upon mounting thereon by an identification tag.*

Kela relates to an electronic device incorporating an electronic display and a keypad. A mounting frame secures the display to the substrate. The Examiner acknowledges that the primary reference, Kela does not teach the claimed invention and provides a secondary reference, Halperin, to compensate for the deficiencies of Kela, with respect to *the top cover and the bottom cover of a key pad assembly being over molded around the stack to form a key pad unit.* Halperin relates to hand-held telephone sets and more particularly to wireless and cellular telephone handsets including a keyboard independent from the handset. The Examiner acknowledges that Halperin does not teach the claimed invention and provides a tertiary reference, Nagashima, to compensate for the after mentioned deficiencies of Kela and Halperin, with respect to *automatically identifying the self contained key pad to a host unit upon mounting thereon by an identification tag.* Nagashima relates to a car stereo having a removable panel attached to a body of car stereo. The panel comprises a cellular telephone system, a battery and a controller for rendering the car stereo inoperative in response to an instruction received through the cellular telephone system; and this reference does not teach the claimed innovation, with respect to *automatically identifying the self contained key pad to a host unit upon mounting thereon by an identification tag.*

At page 3 of Final Office Action, it is erroneously asserted that Kela teaches *the top cover and the bottom cover of a key pad assembly being over molded around the stack to form a key pad unit,* with respect to independent claim 1. The reference (Kela) provides for a display which is mounted on a substrate by a mounting frame to secure the display to the substrate. A number of raised projections protrude from the peripheral edge of the substrate each of which engage in a co-operating recess in the mounting

frame. The substrate includes a planar upper surface to receive the key pad adjacent to the display and the planar upper surface has a plurality of apertures therein corresponding to the position of each key (*See*, Fig. 5, Col. 3 line 63- Col. 4 line 9). Hence Kela provides for a number of raised projections protruding from the peripheral edge of the substrate each of which engage in a co-operating recess in the mounting frame to secure the display and keypad to the substrate. More particularly, Kela *employs raised projections on substrate and co-operating recess on a mounting frame to fix the display and the keypad to the substrate.* However Kela does not contemplate *over molding the top cover and the bottom cover of a key pad assembly around the stack to form a key pad unit.* At page 2 of Final Office Action, Examiner asserts that Kela teaches a display mounted on a substrate; however the key pad is also included, thus Kela teaches the top cover and the bottom cover of a key pad assembly being over molded around the stack to form a key pad unit. However it is respectfully submitted that Kela employs a raised projections on substrate and co-operating recess on a mounting frame to fix the display and the keypad to the substrate. The raised projections are mechanical overheads associated with the substrate and are time consuming and expensive in manufacturing. The claimed innovation facilitates mitigating mechanical over heads like protruding projections associated with holding various key pad components and providing a sealed key pad assembly that mitigates presence of external contaminants in the device. The over molding of the top cover and the bottom cover facilitates a protective seal against outside contaminants and mitigates damage thereto.

At page 8 of Final Office Action, it is erroneously asserted that Kela teaches *the top cover and the bottom cover are over molded to create a sealed common boundary*, with respect to dependent claim 3. The reference (Kela) provides for a mounting frame to secure the display to the substrate. A number of raised projections protrude from the peripheral edge of the substrate each of which engage in a co-operating recess in the mounting frame. The substrate includes a planar upper surface to receive the key pad adjacent to the display and the planar upper surface has a plurality of apertures therein corresponding to the position of each key (*See*, Fig. 5, Col. 3 line 63- Col. 4 line 9). Hence Kela provides for a number of raised projections (or mechanical overheads) protruding from the peripheral edge of the substrate each of which engage in a co-

operating recess in the mounting frame to secure the display and keypad to the substrate. More particularly, the top cover and the bottom cover of the key pad are joined through raised projections (or mechanical overheads) and gaps can exist in the common boundaries of the top cover and the bottom cover through which external environmental contaminants (*e.g.*, water) can pass to the inside of the key pad assembly and adversely affect its functionality. However Kela does not contemplate *the top cover and the bottom cover are over molded to create a sealed common boundary*. The over molding of the top cover and the bottom cover facilitates a protective seal against outside contaminants and mitigates damage thereto.

At page 2 and 4 of the Final Office Action, it is erroneously asserted that Nagashima teaches *automatically identifying the self contained key pad to a host unit upon mounting thereon by an identification tag*, with respect to independent claim 11. The cited reference (Nagashima) provides for rendering the car stereo and the telephone operative after the car stereo is restored to the owner due to theft of the car stereo. A predetermined code is inputted which is assigned to each stereo as an identification code and stored in the memory of the system microcomputer. The input code is compared with the code stored in the memory of the system microcomputer. If the codes coincide, telecommunication system of the panel is restored and the operation of the car stereo is restored (*See*, Col. 6, lines 11-23). Hence Nagashima provides for inputting a code by a stereo owner for rendering the car stereo and the telephone operative and the inputted code must be similar to the stored code in the memory of the system microcomputer. More particularly, Nagashima *requires a code to be remembered and inputted by the stereo owner which must be similar to code stored in the memory to identify the stereo*. However Nagashima does not contemplate *automatically identifying the self contained key pad to a host unit upon mounting thereon by an identification tag*. The claimed innovation facilitates mitigating any code input by the owner and provides for *automatic identification* of the self contained key pad to a host unit when the self contained key pad is mounted on the host unit. Thus, the self contained key pad identifies itself to the host unit without requiring any code to be inputted. Accordingly, the host unit is configured to carry different functions simply by changing the stand alone key pad attached thereto. Such modular configuration facilitates increasing a user's operation flexibility when

employing a stand alone key pad of the claimed innovation. At page 2 of the Final Office Action, Examiner asserts that claims do not mention either the identification is automatically or not. However it is respectfully submitted that previously presented claim 11 already includes this limitation and recites *a method of fabricating a self contained key pad comprising: sandwiching a plurality of key pad components between a top cover and a bottom cover, inserting molding around the key pad components for an encapsulation thereof between the top cover and the bottom cover and* ***automatically identifying the self contained key pad to a host unit upon mounting thereon by an identification tag***.

At page 9 of the Final Office Action, it is erroneously asserted that Kela teaches *an illumination color or brightness on a surface of the keypad* ***indicates a mode of the key pad***, with respect to dependent claim 10. The reference (Kela) provides for a mobile telephone that includes an electronic display such as an LCD and a keypad. The keypad includes a plurality of keys formed on a flexible mat which are accessible through apertures in the front cover of the mobile telephone, and a key pad membrane attached to a substrate beneath the keys. One or more light sources such as LED's are located adjacent to the display around its periphery and in the vicinity of the keypad so that the display and the key pad are illuminated when the telephone is in use. At least a portion of each key is formed from a translucent or light transmitting material so that they are visibly illuminated from the front (*See*, Col. 1, lines 19-35). Hence Kela provides for locating light sources such as LED's adjacent to the display and keypad so that the display and the keypad are illuminated when the telephone is in use. More particularly, Kela provides for *illuminating a display and a keypad when a telephone is in use.* However Kela does not contemplate *an illumination color or brightness on a surface of the keypad indicating a mode of the key pad.* The claimed innovation facilitates alerting a user of the selected mode of the operation and facilitates a user to readily ascertain the mode selected for the unit and prepare accordingly by observing the illuminating color or brightness on the keypad surface. In particular, when actuation of the key changes a keypad's alphanumerical designations that a user routinely applies and is accustomed to, then the user may be dumbfounded if not alerted to such alterations in the function of the key pad. To mitigate such ambiguity, the stand alone key pad of the claimed innovation

provides a visual notification by illuminating a certain color or brightness on the key pad surface (*See*, Spec. page 6, line 9-19).

In view of the foregoing, it is readily apparent that the subject claims are in condition for allowance, and the rejections of claims 1-5, 8, 10-14, 16-18 and 20-22 should be withdrawn.

II. Rejection of Claim 7 Under 35 U.S.C. §103(a)

Claims 7 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Kela and further in view of Halperin and Nagashima *et al.* as applied to claim one above, and further in view of US Patent No. 5,841,857 Zoiss *et al.* (Zoiss). Withdrawal of the rejection is requested for at least the following reason. Claim 7 depends from independent claim 1, and none of Kela, Halperin, Nagashima and Zoiss remedies the aforementioned deficiencies with respect to independent claim 1. Accordingly, this rejection should be withdrawn.

III. Rejection of Claim 9 Under 35 U.S.C. §103(a)

Claims 9 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Kela and Halperin as and Nagashima et al. as applied to claim 1 above, and further in view of US Patent No.5,517,683 Collett *et al.* (Collett). Withdrawal of the rejection is requested for at least the following reason. Claim 9 depends from independent claim 1, and none of Kela, Halperin, Nagashima and Collett remedies the aforementioned deficiencies with respect to independent claim 1. Accordingly, this rejection should be withdrawn.

IV. Rejection of Claim 19 Under 35 U.S.C. §103(a)

Claims 19 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Kela and Halperin and Nagashima et al. as applied to claim 18 above, and further in view of US Patent No. 6,785,395 Arneson *et al.* (Arneson). Withdrawal of the rejection is requested for at least the following reason. Claim 19 depends from independent claim 16, and none of Kela, Halperin, Nagashima and Collett remedies the aforementioned deficiencies with respect to independent claim 16. Accordingly, this rejection should be

withdrawn.

CONCLUSION

The present application is believed to be in condition for allowance in view of the above comments and amendments. A prompt action to such end is earnestly solicited.

In the event any fees are due in connection with this document, the Commissioner is authorized to charge those fees to Deposit Account No. 50-1063 [SYMBP192US].

Should the Examiner believe a telephone interview would be helpful to expedite favorable prosecution, the Examiner is invited to contact applicants' undersigned representative at the telephone number below.

Respectfully submitted,

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